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PATENT

**REMARKS****I. Amendments**

The amendments to claims 19 and 24 are not being made in response to a rejection, for reasons relating to patentability, or to narrow the scope of the claims. Rather, they are being made only to maintain proper antecedent basis.

**II. Response to Rejection**

The following remarks are in no way intended to narrow the scope or meaning of any of the terms in the claims. They are intended only to point out deficiencies in the reasoning behind the rejection.

It is respectfully submitted that the rejection of all pending claims, namely claims 19-28 and 32-40 under 35 USC 103(a), based on a combination of Gough and Andros et al., is in error. Applicant therefore traverses the rejection and requests that it be withdrawn for the following reasons.

The Examiner bears the burden of establishing a *prima facie* case of obviousness based upon the prior art. *In re Fritch*, 23 USPQ 2d 1780, 1783 (Fed. Cir. 1992) and *In re Deuel*, 34 USPQ 2d 1210, 1214 (Fed. Cir. 1995). To establish a *prima facie* case of obviousness by combining references, all claim limitations must be taught or suggested by the prior art, and all words in a claim must be considered. M.P.E.P. § 2143.03 (8<sup>th</sup> Ed. 2001). Furthermore, there must be some suggestion or motivation in either the references or in the knowledge generally available to one of ordinary skill in the art to modify a reference or combine teachings of the references. M.P.E.P. §2143.01. When the references cited by the Examiner fail to establish a *prima facie* case of obviousness, the rejection is improper. *In re Deuel*, 34 USPQ 2d at 1214.

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The Examiner states as the basis for his rejection that "it would have been obvious to use packet switching network of Andros et al. into the mobile communication network of Gough in order to identify the moving mobile during moving between different networks." Applicant respectfully submits that the Examiner has not established a *prima facie* case of obviousness for several reasons, two of which applicant specifically addresses below. First, the stated motivation for combining the references is not found in the cited references or elsewhere in the prior art of record. Second, the alleged combination falls short of meeting all of the limitations in the claims. Applicant summarizes what Andros et al. and Gough each disclose and then specifically addresses the errors.

A. Discussion of references

1. Andros et al.

Andros et al. disclose a paging system that routes a page to multiple broadcast areas. If a page goes to more than one area, multiple pages with the same message are created and sent one for each area. See Col. 18 lines 31-38. The paging network has no knowledge of where the paging receiver is actually located. It simply routes each page through the network to a switch in each of the broadcast areas based on a destination code in the page that identifies the switch. The destination codes are specified in a subscriber's file and added to the page. Once routed to the switches designated in the subscriber file, the page is broadcast by the paging services in the corresponding areas.

The switches to which pages are routed are referred to as "lata" switches. Presumably, a lata switch is a tandem switch for a Local Access and Transport Area (LATA). As shown in FIG. 1, pages are routed through a hierarchical, geographically-based network of switches: several local switches are connected to a lata switch; several lata switches are connected to a hub switch; and hub switches interconnect with each other.

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The subscriber's file (element 54 in FIG. 3) stores in element 78 the destinations code(s) that identify the lata switches to which pages for the subscriber are to be routed. These destination codes are geographically descriptive, and are either area codes or the country and city codes of the LATA of the lata switch. See col. 29, line 67 to col. 30, line 13. The subscribers file is stored at a single local switch. The local switch containing the subscriber file creates one of more pages in accordance with the information in the subscriber file, including adding destination(s) and appropriate commands. See Col. 34 lines 49 - 53 ; col. 41, line 65 to col. 42, line 4; and col 44, lines 4-14 ("The area destination of the page is then changed by the CPU 50 to any destinations specified by the destination field 78 ... and the system command ... is added to form one or more pages corresponding in number to the number of area destinations specified by the service").

Because a page can be requested or called in at any local switch or at lata switch, the page may need to be first routed to the local switch storing the subscriber file to look up destination codes to which the page must be routed. Thus, if a page does not have a destination code, it is routed to the lata switch corresponding to the four most significant digits of the paging receiver identification code. The four most significant digits of the subscriber identification code is an area code or geographic identifier for the lata switch having jurisdiction over the local switch storing the subscriber file. See Col. 28 lines 47-51 and col. 33 lines 60-63. Each lata switch maintains a list of subscribers that have files stored on local switches under the lata switch's jurisdiction. Thus, when it receives a page without a destination code, it looks up the local switch storing the subscriber's file and forwards the page to that local switch for creation of pages with the destination codes.

Multiple pages are gathered together in a packet for routing. A packet is one or more pages going to one particular area switch. Col 12 lines 24-26. FIG. 31 illustrates the structure of a packet containing multiple pages. Each packet has a header that includes a "destination telephone number", "packet size", "origination switch address", "destination switch address", and the number of pages in the packet. Each packet includes multiple pages, with each page having an ID code, a destination code, which

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is an area code or country-city code, and the page. The packet header functions as a media-level protocol for transmitting a packet between two switches. According to Andros et al., the packet header functions as follows:

FIG. 31 illustrates a preferred transmission protocol to be used for transmitting packets of pages between switches. The protocol which is used is a modified X.25 protocol. As illustrated, each packet contains five separate layers. The first layer is the destination telephone number which is the receiving port to receive the page. With reference to FIG. 1 if a packet of X.25 formatted pages were to be sent from a first lata switch 14 to its associated hub switch 16 over communication path 20, the destination telephone number would be the telephone number of the hub switch. It should be further understood that the X.25 transmission protocol as described herein may be utilized with other types of communication mediums between switches such that a destination telephone number may be replaced with another form of address of the receiving switch. The second layer indicates the packet size field in terms of succeeding layers of information. In the present case levels 3, 4 and 5 are provided which dictates that the packet size would store the number 3 to indicate the subsequently lower third, fourth and fifth layers. The third layer contains an origination switch address and a destination switch address which can be either telephone numbers or real addresses within the network 10.

Col. 54, line 57 to col. 55, line 4 (emphasis supplied)

Once received at a switch, each packet is disassembled and the pages stored in inbound buffers. After processing, the pages are stored in outbound buffers for transmission to a switch associated with the outbound buffer. As generally described starting on line 65 of column 35 and continuing to col. 37, line 25, if the switch is a hub switch, it determines whether or not the page is for a lata switch under its jurisdiction. If it is, the page is placed in an output buffer for that lata switch. If not, a decision is made on which hub it needs to be forwarded. If the switch is a lata switch, it generally has inbound and outbound buffers for a hub switch and the local switches under its jurisdiction. See col. 34, line 28 to col. 34, line 68. A page received by the lata switch not destined for the lata switch is routed to the hub switch. A page destined for the lata switch is forwarded to each local switch within the lata switch's jurisdiction. See col. 39, lines 20-25.

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The actual physical location of a mobile paging receiver when pages are forwarded is plainly never taken into account by Andros et al. Furthermore, the system has no way of knowing where the mobile paging receiver is located, or whether it is within the range of any of the transmitters. Each switch node directs packets based on a destination area identified in the packet, which corresponds to a data switch, not a paging receiver's identifying code.

## 2. Gough

Gough is a single transmitter system sending and receiving from a single fixed antenna location packets containing only media level addresses for mobile receiver/transmitters in a single coverage area. Gough does not contemplate routing of messages. The Examiner seemingly admits this, stating "Gough does not disclose a plurality of networks interconnected by handling nodes for routing data packets..."

### B. Grounds for Error

Applicant respectfully submits that there are two, independent grounds for error.

#### 1. The stated motivation for combining references is not found in the prior art

As explained above, Andros et al. does not track the location of the receiving pager and therefore cannot identify it as it moves between different paging networks. Rather, it simply routes pages to all areas where the page is to be broadcast based on geographic descriptors contained in a file for a subscriber to whom the page is to be sent. Gough discloses only a single transmitter and does not contemplate routing messages. Therefore, the Examiner's stated motivation for combining the references -- "to identify the moving mobile during moving between different networks" -- is plainly not found in either of these references. The combination must be based on the impermissible exercise of hindsight and is in error.

#### 2. The combination does not teach every element of the claims

Independent claims 19, 24, 27, 32 and 35 each recite routing based on a code that

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identifies either a mobile data packet source (claims 24, 32, 35) or receiver (claims 19, 27). As explained above, Andros et al. routes packets of pages based on addresses of destination switches, not on addresses of mobile paging units. Gough does not contemplate routing. Therefore, at least for this reason, the combination fails to teach each element of these independent claims and thus also of claims depending on them.

Furthermore, independent claims 24, 32 and 35 state that a logical code contained in data packets from a mobile sources is stored. Andros et al. do not contemplate, and do not provide for, receiving messages from mobile paging units or mobile receivers. Gough does not contemplate routing of messages. Therefore, the combination does not teach every limitation of these claims or the claims depending on them.

Independent claim 38 is directed to a communications node that routes data packets to a host based on a "logical address that uniquely identifies a host within a plurality of networks independently of physical media on which the host is communicating." A host can be either stationary or mobile. The node looks up routing information to route a data packet to the host based on the logical address for the host contained in the data packet. Andros et al. routes packets based on an area code of a lata switch for the area in which the pages is to be broadcast. See col. 14, lines 43-47. It does not route based on the identification code of the mobile paging unit, which in these claims would be the "host." Gough does not contemplate routing messages between networks. Therefore, the combination does not teach every limitation of claim 38 or the claims depending on claim 38.

### III. Grounds for rejection not specifically addressed

Given the clear error in the rejection of the independent claims and the misreading of Andros et al., applicant has chosen not to address specifically the Examiners additional

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comments regarding the dependent claims. However, applicant is not acquiescing to, and is not admitting the accuracy of these statements.


CONCLUSION

For the forgoing reasons, it is submitted that the rejection of all pending claims is in error and that the rejection should therefore be withdrawn. Allowance of the application is respectfully requested.

The Commissioner is hereby authorized to charge any fees or credit any overpayment associated with this Amendment to Deposit Account No. 13-4900 of Munsch Hardt Kopf & Harr, P.C.

Respectfully submitted,

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VERSION WITH MARKINGS TO SHOW CHANGES MADE

19. (Amended) A communication system of interconnected networks, the system comprising:  
a mobile receiver; and

two or more networks interconnected by at least one message handling node for routing data packets;

wherein, each of the data packets includes a logical destination code for identifying the receiver independently of a physical media address in each of the data packets, the logical destination code uniquely identifying the mobile receiver to each of the networks and remaining fixed as the mobile receiver changes networks; and

wherein, [each] the at least one message handling node routes data packets to the mobile receiver based on the destination code, wherever the mobile receiver is located within the two or more interconnected networks.

24. (Amended) In a communications node of a system, a method for routing data packets comprising:

receiving a first data packet, the data packet including a unique logical code for identifying a mobile source of the data packet independently of [the] a physical media over which the mobile source is communicating;

storing the logical code and associating it with the physical media path from which the first data packet was received;

receiving a second data packet, the second data packet including the logical code as identifying the mobile source as a destination of the second data packet;

looking up the physical media path associated with the logical code; and

forwarding the second data packet based on the stored physical media path.